



The real story of *Silent Spring*

On the 50th anniversary of its publication, it is clear that the success of Rachel Carson's unoriginal, pseudoscientific book lies in its appeal to the anti-modern prejudices of our age.

by **Pierre Desrochers**

In an otherwise all-too-typical paean published a few days ago in the *New York Times*, the journalist and poet Eliza Griswold quotes Roland Clement, the Audubon Society biologist on whose desk the galleys of Rachel Carson's *Silent Spring* landed in 1962, as saying that the author 'got both too much credit and too much blame' for her book and that any notion that 'she's the founder of the environmental movement' is a fabrication.

How Carson came to achieve her status as 'Saint Rachel' and the 'nun of nature' is indeed more than a little puzzling. For one thing, the ideological core of modern environmentalism can be traced back to ideas that have been around for centuries and, in some cases, millennia (1). Nature writing with strong environmentalist overtones was well represented in postwar America with major bestsellers such as Marjory Stoneman Douglas' *The Everglades: River of Grass* (1947) and Aldo Leopold's *A Sand County Almanac* (1949); so was apocalyptic Malthusianism with William Vogt's *Road to Survival* and Fairfield Osborn's *Our Plundered Planet* (both 1948). The creation of many organisations whose stated aim was to protect nature against human actions - from the Sierra Club (1892) and the National Audubon Society (1905) to the Conservation Foundation (1947, later incorporated into the World Wildlife Fund) and the Nature Conservancy (1951) - also predated *Silent Spring* by several years.

Even Carson's contentions that synthetic pesticides were unprecedented in their capacity to disrupt the balance of nature and were paving the way to a cancer epidemic were hardly original. Indeed, fears of the lethal impact of older 'natural' pesticides ('natural' meaning compounds based on arsenic, copper and lead) had long been raised and acted upon by numerous writers, activists, bureaucrats and politicians. Arguably the most successful book of the genre before *Silent Spring* was Arthur Kallett and Frederick J Schlink's 1933 work, *100,000,000 Guinea Pigs: Dangers in Everyday Foods, Drugs, and Cosmetics* (the number in the title referred to the size of the US population upon its publication), whose main claim was that the 'food and drug industries have been systematically bombarding [the American public]

with falsehoods about the purity, healthfulness and safety of their products, while they have been making profits by experimenting on [American consumers] with poisons, irritants, harmful chemical preservatives and dangerous drugs'. Kallet and Schlink's book was so successful that it went through 32 printings in the four years following its publication, while spawning a whole literary genre referred to as 'guinea-pig muckraking'.

Not surprisingly, similarly sensationalistic claims followed the introduction of the pesticide DDT in the 1940s. For instance, in a piece published in early 1945 in the *Saturday Evening Post* - the first magazine to ever sell more than one million copies per issue - US Brigadier General James Stevens Simmons observed that 'reports of the amazing uses of DDT are passed over for yarns telling of its destructiveness which sound like newly created versions of the Arabian Nights. These incredible rumours picture DDT as a substance which may bring complete ruin to both the animal and the vegetable kingdoms.' Among other things, 'a serious scientific report that DDT has killed millions of malaria mosquito larvae in Gatun Lake may be overshadowed by a fantastic story claiming the particles of the chemical, transported by the trade winds, have annihilated all the blue butterflies in the Isthmus of Darien' (2). Of course, Simmons was not blind to possible problems and fully realised that 'such a powerful insecticide may be a double-edged sword, and that its unintelligent use might eliminate certain valuable insects essential to agriculture and horticulture. Even more important, it might conceivably disturb vital balances in the animal and plant kingdoms, and thus upset various fundamental biological cycle'. He then assured his readers that significant research efforts had been launched in this regard.

Several balanced pieces on the advantages and problematic aspects of DDT were published in the popular press in later years. As the anonymous author of a *Time* magazine piece would remind his readers in 1949, when DDT 'was first offered to the general public in 1945, the US Army and Public Health Service warned that the wonder insecticide had better be used cautiously. No one knew much about DDT's long-range effect on human beings or on the balance of nature.' Besides, no one ever 'stepped forward to deny that careless use of DDT is dangerous'. Interestingly, almost a quarter of the 228 articles published on DDT in the *New York Times* between 1944 and 1961 were 'largely or wholly devoted to the potential risks associated with the pesticide's use'.

Of course, many articles aimed at non-specialists were nothing short of apocalyptic. For instance, in a lengthy 1952 essay on 'The Problems of Chemicals in Food', the radical social theorist Murray Bookchin argued that recent scientific evidence suggested that DDT was most probably causing an 'epidemic of nervous and physical disorders', and that the 'use of chemicals in food has, in fact, become so extensive and reckless that mass poisoning [was] now a real danger to the American population' while 'instances of acute toxic effects have already approached the point of national disasters'. Interestingly, a few months before the launch of *Silent Spring*, Bookchin published a book-length jeremiad titled *Our Synthetic Environment*, in which he argued that because modern societies had become increasingly dependent on synthetic products and modern (mono) agricultural practices, a point had been reached 'where the natural supports for life . . . [were] rapidly dwindling', as modern man was

'undoing the work of organic evolution, replacing a complex environment with a simpler one' and 'disassembling the biotic pyramid that has supported human life for countless millennia'.

Even by popular-literature standards, *Silent Spring* can be legitimately characterised as vintage technophobic muckraking in quality literary clothing. While Carson acknowledged an 'insect problem' and opposed a complete ban on synthetic pesticides, the implication of her book title and her 'fable for tomorrow' left little room to the imagination of her readers. Besides, she further argued that, because they were 'man-made', synthetic insecticides 'differ sharply from the simpler insecticides of prewar days [that] were derived from naturally occurring minerals and plant products', and, because of their 'enormous biological potency', they had 'immense power not merely to poison but to enter into the most vital processes of the body and change them in sinister and often deadly ways'.

Unfortunately, Carson made little to no effort to provide some balance to her spectacular claims and ignored key contradictory evidence. Five problematic issues need to be highlighted to twenty-first century readers:

- **Carson vilified the use of DDT and other synthetic pesticides in agriculture, but ignored their role in saving millions of lives worldwide from malaria, typhus, dysentery, and other diseases.** True, some insects had already developed resistance to DDT by the time she published her book, but Carson (and later environmentalists) systematically ignored strong evidence that, unique among man-made insecticides, DDT also acted as a powerful repellent, stopping mosquitoes from entering houses and transmitting disease while people were asleep. DDT's repellent actions were repeatedly discovered and quantified by field and laboratory researchers as early as 1943 and apparently never triggered any insect resistance, yet were systematically ignored by environmental activists.
- **Far from being on the verge of collapse, American bird populations were, by and large, increasing at the time of *Silent Spring's* publication.** One of the chief claims of the book - and the inspiration for its title - was that DDT would have a devastating impact on birds. But although Carson was very active in the Audubon Society, she ignored the organisation's annual bird count (which was for a time co-published by her employer, the US Fish and Wildlife Service), which had long been the best single source on bird population. Instead, she relied on anecdotes claiming bird populations were collapsing. By contrast, an open-minded science writer could have legitimately suggested that DDT benefited many birds by protecting them from a wide range of diseases (avian malaria, Newcastle disease, encephalitis, rickettsialpox and bronchitis); that it might have played a useful role in controlling carcinogens such as aflatoxins that affected many birds' food; and that DDT and the broader synthetic insecticidal package of the time not only made more seeds and fruits available to humans, but also to birds.
- **Cancer rates - exaggerated in *Silent Spring* - were increasing at the time Carson researched the issue because far fewer people were dying from other diseases.**

Once statistical adjustments were made for population age and tobacco use, they disappeared altogether. Although writing at a time when scientists had come to agree that tobacco was a major cause of lung cancer, Carson ignored tobacco as a potential factor and Public Health Service data on this point.

- **Carson's alternatives were worse than the 'problem'**. Many portions of Carson's 'other road' of pest management had long been well-trodden and their significant shortcomings, from the always-uncertain impact on non-target species of 'biological' and other control methods to failures to solve specific problems, had provided strong incentives to develop synthetic pesticides in the first place. As the author of the previous best-selling environmental book of all time, the neo-Malthusian William Vogt, observed upon the publication of *Silent Spring*, the solutions proposed by Rachel Carson were 'not, on the whole, practices that would be feasible until after years, or even decades, of experimentation and adjustment' (5). 'Certainly', he added, 'without chemical aids our vaunted farm-production-per-man-hour would drop sharply, and it is dubious whether we could maintain production-per-acre at anything like current levels'.
- **Carson's 'you can't be too safe' standard came to permeate the environmental regulatory agenda.** Indeed, her outlook paved the way to the 'precautionary principle' that helps to retard the adoption of superior (or at least less damaging) technologies that would have benefited people and the environment.

Far from being a canary in a coal mine or a chemical factory, Carson delivered, in the words of science writer Edwin Diamond, 'just what the public wanted to hear' - in essence, distrust of mad scientists who played God and meddled with nature, large corporations who put profit ahead of people and governmental lackeys who were only too happy to cover up incriminating evidence. As another prominent critic, William J Darby, put it upon the book's publication, *Silent Spring* would naturally appeal to 'the organic gardeners, the antifuoride leaguers, the worshipers of "natural foods", those who cling to the philosophy of a vital principle, and pseudo-scientists and faddists'.

Had Rachel Carson produced a more balanced account rather than claims of gross corporate negligence, life extinctions, widespread cancers and cellular mutations, her popular impact might have been negligible - and many people who suffered through the consequences of irrational pesticide policies in later years would have been arguably better off for it.

Pierre Desrochers is co-editor, with Roger Meiners and Andrew Morriss, of *Silent Spring at 50: The False Crises of Rachel Carson*, Cato Institute, 2012. (For more information, visit the Cato Institute website.)